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ON

R H E U M A T I S M,

AND

GOUT;

A LETTER

ADDRESSED TO

SIR GEORGE BAKER, BART.

M.D. F.R.S. F.A.S. &c. &c.

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PHYSICIAN TO THE MAGDALEN, AND

PHYSICIAN EXTRAORDINARY TO

HIS ROYAL HIGHNESS THE PRINCE OF WALES.

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LETTER, &c.

DEAR SIR,

THE liberty which I take of addressing you on the present occasion, very naturally arises from that indulgence which you have always shewn to me, and from the opportunity which, both as President of the College of Physicians and as a private gentleman, you have constantly granted for freedom of communication. Easy access very often invites intrusion; and, therefore, if your doors have been open and I have not denied myself the satisfaction of walking in, you must lay to that account the visits which I have sometimes made you, and blame yourself alone for the interruption. I know not, however, whether at this time I ought to

presume to consider myself as a welcome visitor, since the subject which I shall propose for your examination (and on which I shall ultimately hope for your approbation) will be an attack upon old opinions—in which, perhaps, I shall find you fortified by numbers against me; but which I conceive to have been defended by a supposed impracticability of the approach, rather than by the real strength of the fortrefs.

The opinions to which I allude, are such which the world in general, medical as well as other men, have hitherto held concerning those two very frequent diseases, rheumatism and gout; and which floating, as it were, in the minds of mankind, without any compass to direct, or rudder to steer their course, have been tossed about by prejudices, and at last lost in uncertainty. It is no argument to say, that in one of them sometimes, and in the other often, we sail on prosperously and reach the expected coast, since this is more the effect of chance than of any well concerted plan, and is owing rather to the nature of the vessel itself, than to the regular management of the pilot—which being well
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built is blown over shoals by strong popular gales, and is driven, not conducted into harbour.

Our ideas on the diseases of rheumatism and gout, have long, indeed, been very vague and very indeterminate; for although each practitioner might be guided in the treatment of them by a particular theory of his own, yet I should suppose that every one of us has observed phenomena, both in one and in the other, which he was unable to reconcile either to any preconceived opinion of the disease, or rationally and satisfactorily to deduce from the laws of the animal machine. For myself I will candidly confess that I have always considered rheumatism as a disease as little understood, and as great a reproach to the faculty of physic, as the gout—having been equally at a loss to account for facts as they occurred in both: for although I have now passed several years of medical life, and have had the honour (I will also say the pleasure) of spending some of them in the largest hospital of this metropolis, as one of its physicians, where there is annually admitted a number exceeding 10,000 patients; and although I have been,

and (I mention it with pride) am still connected with gentlemen of the first rank in their profession ; yet these opportunities have merely been sufficient to convince me that all the notions concerning these diseases, are almost as unsettled and precarious, as the symptoms of them are anomalous and irregular.

It is somewhat singular amidst the contrariety of opinions which have been held concerning these two diseases, that all practitioners should hitherto have agreed in one point, that both of them are inflammations : but notwithstanding the mass of assertion which we may find industriously collected in the earliest, as well as in later writers, I feel myself not only altogether unwilling to allow it, but must contend decidedly and unequivocally against it. We know the several ways in which inflammatory action terminates, and when uninterrupted by art, we generally find that it ends in suppuration or in gangrene, for the slow kind of inflammation which now and then ends in scirrhus, may here be left out of the account ; but I believe none of us ever saw the rheumatism

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or the gout terminate either in the suppurative or the gangrenous process. It may, however, be told me that the termination of every rheumatic and gouty case may be by resolution, the other only remaining way in which inflammation is known to cease; and, therefore, that every argument in support of a contrary doctrine must become unnecessary: but (to say nothing of the improbability of every case, though unassisted and left to itself, necessarily and uniformly ending by resolution, when the very great majority of real inflammations, treated by every means which skill can dictate, are known to terminate otherwise) if meeting the question fairly I shall shew what may be the seat and natural progress of these diseases, and succeeding as I hope I shall be found to do in those particulars, I trust I shall then be thought to have established a more direct theory, however independent it may prove to be on the doctrine of inflammations.

Although in the sequel of this letter I shall produce arguments for a close analogy between the two diseases, yet I will, to avoid confusion, consider them distinctly from each

other, as what I shall advance concerning rheumatism will then more easily apply, and perhaps be better understood in the explanation of gout which will afterwards follow.

I need not bring to your recollection that the system of arterial vessels has a two-fold termination, and that it very gradually diminishes by branching first from the trunk, and by ramifying again from the branches, until it ends, either in most minute capillary tubes which convey the blood into continuous veins, or in secreting extremities, which prepare and deposit the matter of which the body is composed, and which like spiracles give vent as it were to a portion of fluid separated from the common mass, which, as a kind of irriguous exhalation, bedews and softens every interstice of the animal machine. These from their office have properly enough attained the name of exhalants, and would very soon distribute throughout the whole cellular texture, as well as every other cavity of the body such a quantity of moisture as, when collected, would necessarily occasion dropsy, were not this extravasation almost immediately corrected by another set
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of vessels which have been denominated absorbents or inhalants, and which at their origin are of inconceivable exility: for if, as Arbuthnot has stated, ten capillary arteries are not equal in size to the finest hair, and the least lymphatic vessel be more than an hundred times less than the smallest capillary artery, the inhalant or absorbent vessel must, at its commencement, be minute almost beyond computation. But we need not at all go to the extent of such a supposition, since it will be sufficient for our purpose to consider the lymphatic system, as beginning by innumerable orifices leading directly to tubes, which in their capacities, are collectively equal at least to the exhaling extremities of the arteries, and which may be considered together as forming a series of vessels, which in their turn are also collected into another series, and so on until we are able to trace them into a distinct and regular arrangement, conveying fluid back again into the sanguiferous system: It is in these exquisitely fine and slender radicles of the lymphatic vessels that I place the seat of rheumatism.

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I think we may be allowed to assume it as an incontrovertible fact, that any obstacle to the free passage of a fluid through a canal, must of necessity occasion an accumulation in the several streams from which the canal is supplied; and that these also, having their current interrupted, must thereby as necessarily impede the course of the numberless rivulets which should otherwise ordinarily flow into them. And this we find universally to be the case with respect to the lymphatic system: for whatever may be the obstructing cause, every vessel immediately leading to the part obstructed must be filled, and consequently the vessels forming the next series must be also distended; a swelling and turgescence must therefore always arise in extent proportionate to the size and number of collateral and anastomosing branches which may for a certain space divert the fluid, and then circuitously convey it into the regular trunk again.

Every body knows what usually happens when a gland in the axilla has been so greatly enlarged (no matter from what cause) as
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to prevent the fluid not only from passing through it, but also by pressing upon the neighbouring lymphatics from passing through them also; that the arm swells, and for a time remains in almost intolerable pain until the swollen gland subsides, or until the fluid finds a passage by other more indirect courses. If it be objected that the sanguiferous system is here also obstructed from the same cause, and that thence alone may arise the painful distension of the limb, I would answer, that where lymphatic glands have been cut out by the knife, as must be the case when in the removal of a cancerous breast they have been found to be diseased from the absorbed sanies, that then where there is no tumor, but a considerable vacuity from an actual loss of substance, an interruption takes place from the destruction of the usual passages, tumefaction is produced, and pain equally excruciating follows. When a diseased gland is extirpated from the groin, as now and then has been practised in some syphilitic cases, the leg and thigh will long afterwards continue in a painfully tumefied state, until

the collateral canals shall be capable of conveying forwards the accumulated fluid. We have all of us seen, after some difficult cases of parturition, that one or both of the lower extremities have become œdematous and excessively painful during a very considerable length of time, until the lymphatic vessels of the pelvis; which have suffered by the difficulty of the labour, shall have recovered from the injury then sustained, or until others in their vicinity shall, by gradual enlargement, be fully competent to discharge their office for them. I know however that there are instances where the pain is not so great as I have generally stated it to be in the examples which I have here adduced of obstructed lymphatics; but I believe those will only be found to happen in very debilitated systems, where there must consequently also be a very diminished energy in the action of the absorbents.

The cases which I have just enumerated will be sufficient to shew not only the general effect produced by any obstruction in the course of a lymphatic vessel, but will very
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much tend to elucidate the doctrine which I am now about to deliver concerning rheumatism. I have already said that I consider the seat of this disease as established in the minuter series of those vessels, which afterwards may more visibly be demonstrated to be lymphatics. I suppose that the common causes producing rheumatism, such as the sudden application of severe cold to the body when greatly heated, and more especially of cold and moisture at the same time, affect all the different series of the lymphatic system, by occasioning a preternatural constriction of the vessels, and consequently diminishing their diameters. I need but mention the ready communicability of heat in bodies of unequal temperatures (as it is a law so universally understood), to shew that a part possessing a given degree of warmth, may suddenly be deprived of it, and contracted in its dimensions (according to another general law), by exposing it to a medium intensely cold: for as the lymphatics about the joints usually run more superficially than in other parts, and as there we generally find fewer collateral branches, ob-

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struction may perhaps really happen more frequently from cold in those parts than in others ; but should it be otherwise, yet from the paucity of vessels, and the consequent difficulty in the transmission of their fluid, when those vessels have been constricted, obstruction must from any common cause be oftener there produced, accumulation must take place, and tumor, heat, redness, and pain must follow. When any set of vessels have thus had their natural arrangement altered, and their usual offices interrupted, the distension may have been so great as not only to have weakened them for the present, but to have deprived them of the power of discharging their duty afterwards. In some instances indeed even actual rupture of a lymphatic, as I have occasionally seen in rheumatism, may be the consequence of distension ; for as the fluid which is absorbed cannot possibly regurgitate (notwithstanding the doctrine of retrograde absorbents in a late popular work), because absolutely prevented by the intervention of valves, and as the extremities of the absorbing vessels are here in a constant state of activity still taking

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up fresh matter, the lymphatic must either burst and discharge itself into the neighbouring cellular membrane, or the anastomosing and collateral vessels must adapt their capacities to the reception and transmission of the increased quantity of fluid. In either case, however, whether of rupture, or of such preternatural distension, we may easily observe, that if the part itself be not destroyed, yet the economy of it must be extremely disturbed, and in consequence of such disturbance, that there will always be a liability to similar attacks in future, although the cause should even be less forcibly applied. I would even venture to say, that whenever either of those cases (rupture or distension) has happened, that almost any increased action of the sanguiferous system, whether accompanied by exposure of the body to cold or not, may produce rheumatism more or less violent, according to the continuance of that action, and according to the previous injury which may have been done to the lymphatic. Here then we see the precise difference between acute and chronic rheumatism: The first always depending upon
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the operation of external and evident causes, which, when powerfully applied, produce a proportionate constriction of the lymphatic vessels, and consequently an accumulation of fluid in them; the other arising from causes less evident indeed, yet not less certain, but connected already with circumstances which now always necessarily existing must constitute a predisposition in the system to be affected by such causes, and subject it at all times to the effect of their immediate action.

I hope I may presume to say, that the sudden alteration both of the state and seat of the disease, as well as its tendency to frequent and unexpected recurrence, cannot militate against the doctrine which I have just advanced. The very inconsistent idea of metastasis, or transition of humor from one place to another, where there is no actual communication of vessels, ought not certainly to be adduced in argument to the contrary, unless it can be proved by something more than assertion: for whoever can suppose a lymphatic capable of being suddenly constricted, may reasonably also imagine that constriction may sometimes be as suddenly removed,

removed, and that the tension of the joint may therefore subside; and if an enlargement even of the opposite limb should then take place, with all the usual concomitants of heat, and pain, and redness, I should think it much more likely to have happened from the general disposition to contractibility, which then particularly exists in the lymphatic system, and which may possibly have been aided by the concurrent though unheeded circumstance of an unguarded exposure to cold, than that the fluid should so suddenly have passed to a distant part of the body through vessels hitherto unobserved; and surely there can be nothing very absurd in the supposition of an increased contractibility, if we allow that the fever, as it is usually called, which attends rheumatic cases, can be so propagated as to affect the system generally; since that very affection in the then very irritable state of the body, may carry along with it, even into the remotest lymphatic vessel, a greater contractile tendency: for every body knows that there are circumstances in which there is almost an exclusive affection of some parts of the ani-

mal machine, without much disturbing the rest; that opium, for example, shall more especially affect the nerves, mercury the absorbents, and antimony the exhalants, that fat shall be generally deposited in the cellular membrane, osseous matter in arteries, venereal virus in bones, impetiginous acrimony on the skin: there is nothing therefore very wonderful that under certain circumstances also the lymphatic system should be more liable to be affected than at other times; and if we can believe it ever to be brought into that sort of inactive or languid state, which we generally denominate relaxed, we shall find no difficulty in allowing that it may sometimes be influenced by an unusual degree of energy, and thence deviate into that morbid excess of it, which I have called, I know not whether properly or not, its contractibility.

From this general view which I have taken of the lymphatics, the frequent recurrence of the disease may easily be explained; and if we also recollect what I have said above respecting their rupture and distension, the probability of that explanation will be placed beyond all possible doubt, whether

it be applied to the acute or to the chronic rheumatism.

It will be told me perhaps that as tumor, heat, pain and redness, rigor, thirst, occasional vomiting, quickened circulation, and other symptoms of inflammatory action are present, that the rheumatism is an inflammation of a peculiar kind, having its own distinct and particular termination; but strong as these signs certainly are, and characteristic as they may be thought to be of the presence of actual inflammation, yet who cannot, almost immediately, produce the whole of them by the application of a tight bandage? The limb shall swell, feel hot, look red, throb, and be exceedingly painful; and yet although the pulse shall beat more frequently, shivering come on, sickness sometimes supervene, and the tongue and fauces even become dry, these symptoms of inflammation shall immediately cease by the mere removal of the bandage. But here, by the way, it may be said, that something more than obstructed lymphatics are concerned, and that the sanguiferous system is obstructed also: but if where a general obstruction has taken

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place, as to produce at once such a powerful combination of symptoms so strongly indicative of inflammation, and yet without inflammation actually arising, the argument taken singly, with respect to the lymphatic system, will certainly go to prove that inflammation is not very likely to be the consequence of an obstruction there, since it is not at all produced when we make the application to both of them together. I might go on to say, that even the very signs of inflammation, which I have mentioned, are sometimes very ambiguous; for the passing of a stone from the kidney into the bladder, or of a biliary calculus into the duodenum, will be accompanied with most of them: The spasmodic colic from lead, and cholera, and some other diseases which might be instanced, are attended also by several, and yet none of us ever dream of any thing like actual inflammation: and with respect to the idea of the rheumatism having its inflammatory action terminated in a manner peculiar only to itself, the same might, with equal propriety, be said of those diseases which I have just enumerated, and where

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we know for certain that inflammation never happens:— Neither will the buffy and fizy state of the blood, I suppose, be now insisted upon as an infallible proof of inflammation, since we all know that in any of the diseases to which I am alluding, and in others where the system is acting strongly, the very same appearance will undoubtedly occur. But the truth exactly is, that the rheumatism can only terminate, as I have before stated, by the lymphatic recovering its usual office, or by neighbouring branches performing its duty for it, or by its rupture and the consequent effusion of fluid into the cellular membrane; terminations sufficiently distinct (except that of resolution, which I have above considered) from those of inflammation.

It may be needless for me to enter into the history of the symptoms of this disease, as it is in general so well described by others, and, as I should suppose, known almost to all. There is no season of the year in which the rheumatism does not very frequently occur; but those in which the vicissitudes of temperature are most sudden produce it oftener than others. Exposure to cold and

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moisture

moisture after violent exercise, sitting in a strong current of air when the body is heated, going into a damp bed, wearing wet clothes, or any such similar cause, will generally produce it. Rigor, heat, restlessness, thirst, and all the common symptoms of fever usually precede a sense of soreness and stiffness, which in a day or two are followed by pain and swelling all over, but more especially about the joints of the body. These swellings, increasing in size, look red, and become smooth and glossy; they now and then suddenly subside, and sometimes as suddenly appear again in the same or in other joints: they do not receive the impression of the finger like anasarcaous tumors, except towards the termination of the complaint when they will occasionally recede a little upon pressure. The tongue is commonly white through the whole course of the disease. The bowels are usually costive, and the urine is of a palish amber colour, with a floating semipellucid cloud. The fever, after an uncertain duration, diminishes by degrees, the water becomes turbid, and deposits a pink-coloured sediment, the skin feels cool and

and moist, and the pain irregularly abates, although it does not often entirely cease ; and the swelling diminishes in the order in which it arose, first in the larger branches of the lymphatics, then in the smaller, first, for example, in the wrist, then in the hand, and afterwards in the fingers ; but distortion, with little knotty protuberances, containing a glary fluid, and sometimes an indurated cretaceous-like matter, too frequently continues. The patient remains weak, and recovers very slowly from a severe attack of this disease, and which, from its aptitude to recur both with and without fever, generally harasses him more or less through the rest of his life.

The different appellations, which have been given to this disease, seem only to be of consequence, as pointing out to us the part affected ; for under whatever name it may be known, the method which we employ for its cure, after we have exactly ascertained its nature, is commonly the same. There are some indeed who think that a particular remedy is more proper in one variety of rheumatism than in another, and will use that in lumbago, which they never think of in scia-

tica ; but if there is general fever throughout the system, and great pain, with tumor of a part, it is not material with respect to the curative intention, whether it may be seated in the loins or the shoulders, in an arm or a leg, an upper or a lower extremity. The thing most necessary therefore for us to determine in the method of cure, is the simple distinction of the disease into acute and chronic rheumatism ; and when that is once exactly known, we should employ that mode which reason and experience tell us to be the best : and if the case be rendered sometimes obscure, by being as it were blended, and by partaking of the nature both of one and of the other, we must be guided by symptoms, and regulate our conduct accordingly : for if merely the part affected was to determine the remedy, and nothing more than just knowing it to be rheumatism was judged necessary for its cure, I am afraid that lameness and deformity would but too frequently be the result of such irregular and unscientific practice.

One would suppose, from the precision with which men speak and write upon this disease,

disease, that there was nothing so easy as the distinction of it into the acute and chronic state; and that putting the patient to bed, and increasing the external heat by covering him with a great number of blankets, would at once determine it; but although in the generality of cases we can from circumstances certainly declare which is of one kind, and which of the other, yet I can by no means either allow that the application of external heat is the best criterion by which we are to be directed, or that it always increases the pain in the acute, whilst it diminishes it in chronic rheumatism.

It necessarily falls to my lot, in the discharge of my public duty (for I would not be thought vain and ostentatious by arguing from what I may observe in private practice), to see annually a great number of patients afflicted with this disease; but I do not find their pains so regularly increased by external heat as common opinion would have us to suppose: nay, I will even venture to affirm, that where heat can be applied without pressure, as in warm and vapour baths, and sweating rooms, the reverse is the fact, and
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that not only chronic rheumatism (as is allowed by all) will be thereby relieved, but that the acute also will be considerably mitigated. The idea of comfort which we attach to a warm bed, has become so habitual to us, that when the accustomed rest does not follow, it is no wonder in our disappointment that we should sometimes confound terms together, and deduce an effect from a cause incapable of producing it: for I think it much more reasonable to suppose that a patient who cannot bear the pressure of the hand, as is almost always the case in acute rheumatism, should experience pain equally intolerable by pressure upon him in bed, than that warmth which under other circumstances undoubtedly relieves, should here act otherwise:—but if I should be told that external pressure is so guarded against in many cases that increased pain cannot thence be supposed to arise, I would rather hazard the opinion, that from the patient being placed in a reclined and horizontal position, the muscles must be put into other states than they were in before, and that in this deviation from their ordinary posture, pressure
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more or less must consequently be produced upon the distended lymphatic, than to allow any thing to the agency of external heat: during this muscular alteration also, we are impressed with the idea that rheumatic pain pursues the course of the muscle, when, in reality, it is felt in the direction of the lymphatics, and is no farther connected with muscle, than water is with muscle in dropical swellings of the cellular membrane; which lies indeed contiguous to it, but does not occupy it as the actual seat of the disease.

It has generally been the fate of those diseases, which have not been well understood, to have been treated in very different and even very contradictory methods; and as nature often prevails over the most irrational practice, each of these several methods has at one time or other succeeded: we need not therefore wonder that men should sometimes err in referring that to art which is the effect of causes purely natural. I might instance diseases, not a few, in which either false observation, or obstinacy of opinion, or wrong deduction, or indolence, or superstition has introduced such confusion and incongruity, that

that it is extremely difficult for a physician, who puts too much faith in what he has read, to form a proper decision from what he sees ; for he finds it almost impossible to shake off the authoritative opinions of others, although the evidence of his own senses would lead him to a fairer and more obvious conclusion : whoever but even superficially considers the treatment of rheumatism, will observe one strong example of the truth of the general remark which I have just now made ; for he will find phlebotomy, and blisters, and purges, and fomentations, and bark, and opium, and mercury, and antimony, and guaiacum, and volatile alkali, and turpentine, and a variety of other remedies applied indiscriminately in any stage of the disease, and which too have all of them in their turns, at one time or other, appeared to be useful ; but he will not, if he has not lost his reasoning faculties, easily believe that from such a discordant collection of remedies, it is a matter of indifference which he shall chuse to employ, notwithstanding he might be told by this or that author, that each and all of them would certainly cure the disease,

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What I shall deliver concerning the cure of rheumatism, will be taken as, I think, every curative indication ought to be, from comparing the circumstances as they generally succeed each other, with those which in the natural state of the body are known to constitute health; and without being influenced either by the plausibility of a theory, where facts seem not to accord with it, or by the authority of great names, which sometimes we know can stamp a value upon inconsistency, I will just state the progress of the disease, and follow it as well as I am able, with the appropriate means of relief.

When a patient first complains of stiffness and foreness, and these are accompanied by the common febrile symptoms, we know not exactly what disease is about to succeed: for it may turn out to be ague, or any other species of fever strictly so called, it may possibly be one of the exanthematous diseases, or it may be any one of several other disorders, just as likely as it may be rheumatism:—but we know such an attack to be a deviation from the natural state of the body; and, therefore, immediately employ those means which a proper consideration

ration of the concurrent symptoms seems to require.—The patient is, perhaps, accordingly advised to go to bed, and to use those remedies which are calculated to promote an evacuation from the bowels, and produce an increased perspiration—but the choice of these remedies is certainly not a matter of indifference; a disease of considerable activity, as we judge from the previous and then existing circumstances, is now approaching, and, therefore, in our endeavour to regulate the disordered state of the animal economy, we should be careful lest our attempt should be the cause of much greater confusion. In such cases I should suppose physicians would rather simply employ the neutral salts, than purge with calomel, or jalap, or colocynth, or any of the resinous articles of the *Materia Medica*, notwithstanding it might appear to the patient, and to his friends, as a thing of very little moment how the evacuation was procured, or whether a cooling or a stimulating medicine had produced it: and for the same reason would bath the legs in warm water, and use antimony, and ipecacuanha, and saline mixtures, and all the milder kinds of diluent
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and diaphoretic remedies, in preference to guaiacum or contrayerva, or spice, or alcohol, or volatile alkali ; for if by relaxing the excretories, perspiration can by the common and the natural power of the system be more copiously produced, there is no need of quickening the circulation, and consequently of stimulating any set of vessels to produce the same effect, when an increased action of the system is not only not desirable but is even hurtful.

But I must suppose, for the sake of argument, that the disease does not in a day or two yield to this method of treatment, but (as is then always the case) shews itself by more evident symptoms actually to be rheumatism : we may then, if we please, certainly proceed with strict propriety to phlebotomy as another powerful means of diminishing the activity of the system, we may urge our relaxant plan with greater energy, we may supply our diluents plentifully, we may use fomentations, or the warm bath, we may apply leeches, and we may give opiates : by this time, perhaps, the disease may have been mitigated, and as the system may probably have been much weakened,

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ened, by the necessary evacuations, something more cordial as well as tonic may now be allowed along with the relaxant remedies ; but we should be well convinced that the rheumatism has very much subsided before we hazard the use of wine, or steel, or bark singly.—Irregular pains will now, perhaps, occupy different parts, although the febrile symptoms shall have ceased altogether ; and, therefore, in this latter stage of the disease we may apply cupping glasses, and blisters, and stimulating plasters, and liniments ; and we may use calomel, or volatile alkali, or turpentine, or guaiacum, or any other remedy of that class, which we may then more particularly approve.

This we may consider as the general outline of the cure of rheumatism, which it is sufficiently easy for any of us to fill up according as the symptoms of the disease may vary, or as circumstances may require.—I will further, however, endeavour to shew as briefly as I can, how the several classes of remedies into which I have thought it right to divide the *Materia Medica* can be applied, and of which I shall more especially mention those

those medicines whose use has commonly obtained in this disease.

The class of astringents seems but of little use in the commencement of rheumatism; for where there is too much obstruction already, one would not hazard any remedy which might possibly diminish the area of vessels—and although it might be said that the obstructed vessels cannot admit of further constriction, from the impossibility of receiving the astringent remedy into them, yet no one will doubt that it may find admission into the neighbouring vessels, and consequently deny to the collateral branches that ready communication with the obstructed part, by which it usually experiences relief: and here I will observe, once for all, that I consider every medicine as carried through the system, and as capable of acting upon the containing vessels; for although it may be asked, how can we conceive it probable that a grain or two of an astringent medicine can be so divided as to affect every part of the body; I would answer, that perhaps on this very divisibility of it depends its greater efficacy, and that if by the common tests of

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chemical

chemical experiments, we can certainly discover a single grain of vitriolated iron minutely diffused through every drop of several gallons of water, there is no good reason to reject the supposition that the same, or any other medicine, may be equally divided and diffused through the whole animal machine. I am well aware of opinions to the contrary; but it is unnecessary to make any further digression upon a subject which is not immediately before us. But although in the early stages of rheumatism, an astringent remedy cannot be employed with advantage, yet when the pain and swelling have subsided, and the strength of the patient has necessarily been greatly diminished by the continuance, as well as by the treatment of the disease, it may then be given with considerable benefit. It does not belong to this place to shew how astringents may secondarily produce a tonic effect: otherwise I might state that a gentle astringent power constantly applied to the simple fibre, must increase the cohesion of its parts, and consequently render it stronger; and that whilst this application is made (as I conceive it may be made universally, whether
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by acids, or by metallic or vegetable matters) a greater energy is given to the whole system, by which it is enabled to discharge its several functions more and more perfectly, until at last the regular and natural tone of it is completely restored.

Emollients from affecting the simple fibre, in a manner directly the reverse of astringents, I need not say ought to be used when the tension is great, and heat and pain consequently very urgent; for under contrary circumstances every one thinks the mollifying power of oil, or mucilage, or water, either applied separately or in the form of liniments, poultices, or fomentations, not only unnecessary but sometimes hurtful.

I have before taken occasion to observe, that every thing which stimulates the system in some stages of the acute rheumatism must be improper; the class of stimulants therefore, which increases the action of the living solid, can only be employed under particular circumstances of this disease, notwithstanding the frequent and indiscriminate use which is made of some of the remedies which are therein contained. If anatomists are right

in saying that there is a secerning extremity of an artery, whose secretion may be augmented in proportion as the circulation is increased, and if I am right also in fixing the seat of rheumatism, as I have already done, in those smaller vessels which constitute the first orders of the lymphatic system, surely no remedy can be proper which tends to promote the secretion of a larger quantity of a fluid, which is at present in too great abundance, and whose absorption must undoubtedly add to the existing difficulties; for here I suppose strong absorptive efforts always to take place, since in rheumatism the extremities of the lymphatics are active and vigorous, and the body not otherwise in a state of disease, than as it may be induced by the obstruction and distention in the lymphatic vessels—far different from that state where the energy of the animal machine has been destroyed by previous disease, where the fluid is permitted as it were to escape from the artery through its secerning extremity, where it is collected in every cavity, where it is diffused every where throughout the cellular membrane, and where the absorbents are as it should almost seem in a state of flaccidity,

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and have not force sufficient either to expand their orifices, or power to imbibe the extravasated humidity.

As these observations will abundantly suffice to elucidate the idea which I have entertained both of the abuse of stimulants in rheumatic cases, and of the time also when they may occasionally be given with advantage, I will only observe, that the nearer the state of the disease is to that which we commonly call chronic, and of course the less connected it may be with pain, and heat, and tumor, the more rationally will this class of remedies be applied. Although the guaiacum is chiefly used, yet any of the resins, or the balsams, may properly enough be employed with similar intentions—for when the system is languid, the circulation feeble, the pains irregular, and the lymphatic weakened by distention, we want something to promote a steady uniform action—for as debility will equally operate in occasioning congestion in the lymphatics as in other places; so any thing which increases the activity of the living solid may remove it, and by producing an uniformity of action

afterwards prevent its recurrence. I know very well that my opinion respecting the use of stimulants in acute rheumatism, will be attacked by the argument of volatile alkali (which we all allow to be one of the most active medicines of this class) being very frequently given with considerable success, and promoting an easy and a copious diaphoresis ; but that I may not shrink from the opinion, and desert it as ill-founded, I beg leave to urge in favour of it, that in nine cases out of ten, the stimulant power of ammonia is destroyed, before it can possibly act upon the system in general. Every one who knows any thing about chemical affinities will agree with me when I assert, that the mucus of the stomach will immediately unite with it into a kind of saponaceous mass, and as such directly render its stimulant effect very doubtful ; but if it be allowed that acrid, or acid matters ever exist in the stomach, the ammonia which was given under the impression of its stimulating power will be converted into a neutral salt, into a kind of *spiritus mindereri*, and act upon the system with a truly *relaxant power*. I have no hesitation in

in saying, that such is my opinion also with respect to the two fixt alkalies, the kali and natron, which I consider as stimulants in less degree, but which are convertible into very different medicines, by the means above-mentioned: if likewise, as is usual, the patient dilutes plentifully with simple watery fluids, the fact will be more obvious, and the relaxation much more compleat. Although I shall not, perhaps, be allowed by some to reckon calomel, and other mercurial preparations, as belonging to the class of stimulants; yet experience will bear me out in saying, that mercury is as hurtful in the acute, as it is useful in the chronic rheumatism: I do not mean to say, that an occasional mercurial purge can do any particular mischief in the most acute stage of the disease; but with my observation, respecting this mineral, to be applied only to its regularly repeated dose, which, I suppose, given after certain intervals, like any other stimulant medicine, and which, I believe, in acute cases always aggravates the disease. All acrid matters taken from the vegetable kingdom as stimulants, must not for the same

reasons be indiscriminately employed ; for the arum, cochlearia, nasturtium, raphanus, and such like, cannot be proper, except in chronic cases : in the same kind of general observation I might include the aromata, which are sometimes given, as well as those other more strictly medicinal articles contrayerva, serpentaria, and cascarilla : there are others such as sarsaparilla and saffafras, which might also be included in the above remark ; but the effects, which I should otherwise expect from their stimulant power, are often obviated by the watery vehicle with which they are diluted, when given, as they usually are, in the form of decoctions : I need not add that vinous liquors of every kind must, however they may be diluted, be considered as very highly improper in acute rheumatism, whether administered under the denomination of spirits, tinctures, wines or ales. The tepid springs of Buxton, and of Bath, when taken internally, seem to me to produce that gently continued stimulant effect which I have conceived to be so very essential towards obtaining the cure of chronic rheumatism.—I know very well that cases also of the acute kind
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are relieved by both of those waters (by those of Buxton more especially); but, I suppose, in those instances that the good effects produced, have arisen rather from the emollient and relaxant power of the external application, than from their internal exhibition; I will not, however, pretend to deny that as diluents also, they may sometimes be serviceable in acute rheumatism, and that, when used as baths, they likewise very constantly relieve the chronic state of the disease.

If what I have said respecting stimulants be founded in reason, very little argument will be necessary to prove, that the class of sedatives must, in almost every stage of the disease, be proper. I would beg, however, to be understood, that I call those remedies sedative, which, without weakening the system, diminish its activity, and which may from a state of motion, bring it under certain circumstances entirely to rest: all medicines, therefore, of the narcotic kind, will be included under that distinction which I intend by the class of sedatives; for the great variety of remedies, which are said to produce a sedative effect, produce it secondarily only through

through the intervention of some primarily acting cause: thus will asafoetida, or ammoniacum, or amber, or castor, or musk, which we every day see given in some spasmodic affections, overcome irregularity, or inequality of action, by means of their stimulant power, indirectly producing, with respect to the existing symptoms, a compleat sedative effect. Opium and cicuta are the sedatives which I have more especially employed in this disease, and such as may boldly be given every three or four hours, when the circumstances of tension and pain, and watchfulness, seem to require them—Aconitum, hyoscyamus, digitalis, and some others may, perhaps, likewise be found occasionally serviceable; but custom has not yet sufficiently familiarised these even within the sphere of medical practice. I think from the effects observable after a large dose of camphor, that I am authorized in considering it also as a powerful sedative—as such I have very frequently given it, and as such also, from the benefit generally obtained, I cannot but very strongly recommend it.

Tonics which may be said to maintain the
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power of the system, without increasing its action, may certainly very often be given with great advantage; but when the body is already strong, when the circulation is powerful, the muscles firm, and the secretions regular, they cannot, I believe, do any good whatever. For in acute rheumatism, where the system in point of strength deviates little or nothing from its natural state, we usually, amongst other modes of relief, attempt the recovery of our patient by means also which have a tendency to diminish both its force and its activity; and, therefore, I should suppose when in the course of this disease the body becomes exhausted, the circulation weak, the muscular power enfeebled, and the functions imperfectly discharged, that bark, and steel, and bitters, and such like remedies, were then only admissible.

The benefit which may be traced from the use of relaxants, in the acute stage of this disease, will always attach a very considerable value to this class of remedies. If we examine the opinions of those who are the best informed upon this subject, we shall at least find the majority of them favouring and

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recommending a relaxant plan ; for bleeding, purging, and sweating are, as it were, the three great cardinal pivots on which both the ancient and modern practice seems to turn. That the loss of blood will diminish the acuteness of this disease, experience abundantly confirms ; but if we keep in view the account which I have above given, of its nature, and of its seat, we shall then most clearly see, that the diminished quantity of circulating fluids must necessarily occasion a diminution in the quantity to be separated by the secreting extremity of the artery, and consequently afford proportionally less to the active and healthy operation of the orifices of the absorbent vessels : hence, if any part of the lymphatic system be overcharged and distended, it hereby acquires time to accommodate itself to the obstructing cause ; for as a depletion has been made in the blood vessels, it is neither equally pressed upon from behind by the accession of fresh fluid, nor meets an equal obstacle to the regular discharge of its burthen into the veins, but then more readily propels its contents, and contracts itself to its usual dimensions.

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The advantages to be derived from purging in acute rheumatism do not merely depend upon the excrementitious matter evacuated, but upon the loss of a large quantity of fluid poured from the different excretories into the intestinal canal during the operation; for the sudden evacuation of any fluid, tends directly to diminish the quantity in the circulating vessels, and must consequently produce a proportionate degree of general relaxation. The remedies which will promote a determination, as it is called, to the surface, have always been held to be proper both in the acute and in the chronic rheumatism; but the choice of them is not, as I have before observed, a matter of small moment; for there is a manifest difference, whether the diaphoresis be produced by stimulant or by relaxant remedies. I need not again go over arguments to prove that the chronic rheumatism, which is more especially confined to a part, owes its very existence to the debility there produced by previous injury, either from distension or from rupture—in either of these cases, a regularly exhibited stimulant, by giving a little more energy to the whole system,

system, promotes a more uniform action of the diseased part, and often completely effects a cure: but it is not necessary, I think, that *actual sweating* should be produced; for the cure depends, as I suppose, not upon excess of action, but upon its uniformity: for the excess either with, but more particularly without sweating, often aggravates the disease. In the acute rheumatism, however, where the system is in general acting powerfully, and where the part diseased has really become so from causes of obstruction, which are entirely independent of debility, the diaphoresis must be produced by very different means: and here the neutral mixture of acid and alkali would hold a most distinguished place, were it given in large and proper doses; but as the prejudices of mankind will not often allow them to get out of a beaten path, we are too frequently obliged either to exhibit this mildest and very efficacious relaxant in a manner so inert as almost to disgrace its character as a medicine, or to call in the aid of other remedies, which are active in smaller doses: for if it is intended to produce the full effect of a relaxant, I think
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it should be given as an ordinary drink, in the way in which we would direct barley-water, lemonade, imperial, or any other common or medicated diluent. In this mode of administration it would operate upon the bowels also as a gentle laxative, and render the use of kali vitriolatum, kali tartarifatum, natron vitriolatum, and others of this class, which we usually distinguish by the general name of neutral salts, almost altogether unnecessary; some of which however, by the bye, and perhaps all of them, if given in smaller doses, than those in which they are commonly exhibited as purgatives, would be little if at all inferior to the celebrated draught of Riverius.

In the class of relaxants, useful in acute rheumatism, I must very particularly reckon the antimonials. I need not say that all of them may be so managed, as to produce their proper effect; and that even in the chronic state of the disease, they may be so combined with calomel, guaiacum, or other stimulants, as to form a remedy often very highly serviceable. Ipecacuanha, and perhaps some other remedies which in certain
doses

doses provoke nausea, belong also to this class of relaxants: The pulvis ipecacuanhæ compositus (Dover's powder) has long been considered as a medicine of very great utility in acute rheumatism; and is one of those happy compounds, where the relaxant effects derived from two of its ingredients, seem to be improved by the sedative power of the opium.

Water, milk and water, milk-whey, butter-milk, barley-water, and such others as may alter the state of the fluids simply by *diluting* them, are very proper, both in the acute and in the chronic rheumatism; but indeed I do not know whether I ought to have stated any thing as *diluent* besides water; for the others which I have enumerated, together with all the various mucilaginous decoctions, mixtures, and emulsions, which might be mentioned, seem more particularly to belong to the class of *demulcents*, which in rheumatism, as we do not suppose any acrimony present in the system, as its cause, we need not particularly consider.

The remaining classes of remedies which merely promote the discharge of matters from the body which have become oppressive or

excrementitious, without affecting (or affecting but little) the general economy of the animal machine, are but in a small degree applicable in the cure of rheumatism. Thus *apopblegmatics* or those remedies which cleanse the mouth and fauces, are not at all necessarily employed in this disease. *Emetics* indeed may indirectly promote the action of the absorbents, and may or may not, as circumstances happen to combine, be useful in some cases; and if they are given only in such small doses as to create a constant nausea, they may certainly produce a relaxant effect. The same observation may also be extended to *purgatives*, which besides evacuating the intestinal canal may, as I have above observed, be followed by other very beneficial effects: but until we shall be convinced that there is some morbid matter to be expelled, which is the cause of rheumatism, or granting that, until we can bring ourselves to suppose that by means of glandular secretion, such a matter can be separated from the general mass of fluids, and moreover that the kidneys are the glands more directly appropriated to that purpose, we shall

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not, I think, completely trust the cure of this disease to the very fallacious and uncertain action of *diuretics*.

SUCH, dear Sir, are the opinions which I have long entertained respecting rheumatism : I have been led towards them by no blind guides ; for in this, as well as in most other things which bear any relation to our profession, I have endeavoured to follow reason and experience. I may indeed have mistaken my conductors, and been imposed upon by the meretricious charms of fancy and hypothesis ; but unless you who are so well qualified to be my judge, convict me of error, I must still continue to advance and to maintain them. Influenced therefore by the same sentiments, and guided, as I believe, by the same directors, I will now proceed to consider the principal phenomena attendant upon gout ; and to point out, as consistently as I am able, some of those almost unintelligible circumstances which have always accompanied this disease.

As I have endeavoured, in the former part of this letter, to make it appear that neither gout nor rheumatism are at all connected with the doctrine of inflammation, it will be unnecessary for me here to repeat the arguments, which I then adduced in support of an opinion, which was intended to be distinctly and unequivocally understood. The analogy which thence I think exists between the two diseases will become however much more obvious when we shall have considered that the seat of both is precisely the same, that their progress is not much unlike, and their termination not very dissimilar.

Flatulence, eructation, nausea, coldness in the region of the stomach, dyspepsia, borborygmi, languor, vertigo, palpitation, dyspnæa, quick small and interrupted pulse, slight rigors, with irregular and clammy sweats, all or some of them usually accompany the gout; and if pain be constant and excessive, either in the hands or feet, wrists, elbows, ancles or knees, attended with the common febrile symptoms, and increasing for several hours with heat, redness, and tumor, and, in the course of a few days, gradually

again subsiding with itching and sweating of the part, the patient is said to have had a regular fit of the gout; but if the pain should be equally violent, and instead of the extremities should affect the head, or lungs, or stomach, or bowels, or kidneys, or bladder, the gout is denominated *misplaced*; but if the pain should be inconstant, with respect to its duration, and attack one place, and then another, without producing any very considerable heat or tumor, it generally obtains the name of an *irregular* fit. To these may, I think, be referred all the varieties of gout which we meet with either in books or in practice; and these again, as we shall presently see, might, I believe, be more properly distinguished, like rheumatism, into the acute and chronic.

The sensations which patients experience during a fit of the gout, are so differently described by them, that we cannot collect any thing very accurately from their descriptions, except one circumstance, and in that they all agree, that the pain is exquisite. In one it gnaws, in another it lacerates, in this it burns like red hot iron, in that it chills him like ice, this feels the bones screwed

out of their sockets, and that declares them to be bruised to a jelly. In short, in this as in other diseases where there is excess of pain, the senses must necessarily be disturbed; and as sensation has thus consequently been rendered imperfect, we may very naturally expect a diversity in their descriptions.

It has been observed of gout, that it seldom attacks any persons but those of adult age—and of these more particularly, perhaps only, such as have indulged in those kinds of excesses, which have done violence to the system, by disturbing or destroying its functions. And here, in the very foremost rank, must I place that most pernicious of all possible habits, which consists in the use of vinous and spirituous liquors: for not only gout, but dropsy, palsy, apoplexy, and insanity, in a manner most evident and incontrovertible, are too frequently derived from the abuse of them. I need not endeavour to make the picture more horrible, by filling it up with groupes of miserable wretches, who deduce their diseases from the same undoubted cause; otherwise I might state it as a fact, that at least the half of all their infirmities is so produced, and that there is not perhaps more

than one fourth of the catalogue unconnected with it. I might also extend my observation to the influence which this most fatal custom has upon the morals of the world, were I not likely to be considered as straying a little beyond the line of my profession: I cannot however help mentioning, that in one of the hospitals, where I have the honour of having my services accepted as the physician, that not one in six of those unhappy females, who have been addicted to intemperance in drinking, is reclaimed, although more than two thirds of the *whole number* there admitted are eventually reformed. But let not the argument, against the abuse of liquors, be supposed only to be applied to those in the lowest ranks of society, for it will be found just and applicable to all; as well to those who are in a station below mediocrity, as to those who are very much removed above it: one may indeed dispatch his business sooner than the other, but both of them are found at last to have done it surely and effectually: but as it will naturally enough occur as a question, what may really be the abuse of wines or of spirits, I will not hesitate to declare, that whenever it disturbs the
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animal economy, it must be improper, and that the use of it at all will then constitute its abuse. I know very well, that in a state of health there are sometimes certain conditions which require the use of wine or of spirit; but if those conditions frequently occur, the occupation which produced them ought rather to be changed, than that the necessity for the remedy should, by its repetition, by degrees at last convert it into a poison: For the natural antidote of languor and fatigue is rest, and if we substitute a remedy, which by its stimulant powers compels the system to do more than in its ordinary state it is accustomed to perform, the constitution must at last break down, and disease of some kind or other must inevitably follow. The very constant custom of drinking wine and spirits has now indeed so very much obtained, that one would almost think that they were equally necessary to life as food; and that they were as conducive to easy and complete digestion, as they are in reality in the end destructive of it. I may very possibly be told that there are numbers in the regular habit of taking all sorts of li-

quors, and who are living to a good old age, without experiencing any bad effects from them—but I would ask, in return, whether they actually experience any good effects; whether one, who may thus be said to be fortunate, has not outlived an hundred instances to the contrary—and whether the single example, which has thus happily resisted injury, ought to be admitted as a fair argument to prove the innocence of a custom, when it is in the power of every medical practitioner to point out numbers who are daily becoming martyrs to it.

During this habitual and pernicious practice, which might produce any of those diseases which I have said most commonly follow as the effects of it, the indulgence with respect to food determines it rather to be gout than any other. For the stomach, already enfeebled by being accustomed to the most powerful stimulants, seems now to relish or to bear only that sort of aliment which is immoderately spiced and seasoned, and which, if it yields any nutriment at all, must afford it in consequence of a hurried and incomplete digestion, from which there must

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necessarily be prepared a crude and vitiated chyle: and although probably in the natural and regular discharge of the functions of the body any little error may, by the powers of the system itself, be corrected, yet where any organ has lost its energy, and the means which destroyed it are still continually applied to it, we must not expect that nature can any longer resist such reiterated violence. But these indulgencies are often unavoidably connected with another circumstance, which is almost equally injurious to the regular economy of the animal machine; the usual hours of rest are generally encroached upon by a debauch; and when an opportunity of retiring at last arrives, sleep, which ought to renew his strength for the various employments of the succeeding day, if it comes at all, generally visits him in all the horrors of apoplectic stertor, oppressive colliquation, sickness, dreams, and incubus.

From the observations which I have already made, it will easily be seen that I consider a preternatural degree of irritability to be generated in the system as the effect of excessive stimulus; and that the digestive faculties be-
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ing thereby also deranged, chyle in an imperfect state, is constantly forced upon the lacteals, and thence into the circulation, in a greater quantity than the ordinary offices of the intervening glands, and of the lungs are able to correct. An incongruous unassimilated fluid must therefore every where be circulated, and exposed to the action of the secreting extremities of the arteries. Here indeed it may be modified and rendered more fit to enter by the absorbent system, where it is further modified before it is ultimately conveyed into the circulation again; but the body may be in such an extreme state of irritability that the lymphatics, upon receiving this imperfect fluid, may thence immediately be disturbed, their functions interrupted, constriction produced, and pain, heat, redness and tension follow. Gout therefore, according to this idea, may, as the common expression has it, be flying all over the body, for every lymphatic throughout the system may more or less be affected. If situated in a patient's extremities it is generally attended by the usual symptoms, which in an active state of the body constitute it a regular

gular fit ; but if *misplaced*, or seated in parts very essential to life, the same activity of system immediately produces such imminent distress, that death, too frequently unexpected, suddenly destroys him. I need not say that this is the gout which may reasonably enough be denominated acute, since it is quick in its accession, and speedy in its progress. The same common causes which were enumerated as tending to bring on an attack of rheumatism, may here also very likely co-operate, and fix a man at once with a fit of the gout, which might otherwise have deferred its visit to a more distant period—for the constitution sometimes suffers long under a variety of symptoms proceeding from indigestion and the want of a proper assimilation, until such occasional causes, concurring with the increasing irritability of the system, at last render the disease more manifest.

I might, perhaps, with more propriety of arrangement, have added above to the excesses which become the foundation of an irritable and depraved state of the body, that any thing superadded to those irregularities
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which in its consequences diminishes the vigour of the system, must necessarily increase that irritability and depravity: thus it has always been maintained that immoderate venery, and intense study, as they are two principal causes of debility must very considerably augment any previously existing disposition to a gouty affection: but, I think also, that independent of such a previous disposition they may eventually produce the disease; for whatever debilitates the general frame must debilitate its functions, and by that means ultimately induce not only preternatural irritability of the solids, but such a depravity of the humours, that may or may not terminate, as occasional causes may conspire, in a fit of gout: I think too, that a constant anxiety of mind, accompanied with daily bodily fatigue (as, for example, must inevitably happen in the professions of physic and of law) may for the same reasons, even in early life, create such a disposition, as when the frame grows old, and the powers of the system become weaker, may end, according to circumstances, in actual gout: I know very well that some of my friends will
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here smile, and say, that in speaking of causes, I have purposely omitted to mention all the good living which professional men have the credit of enjoying with the world in general; but be that as it may, there certainly are to be found some instances in both of them, as well as in several other very active employments, where from causes not at all connected with any such sort of enjoyment, the gout torments a man who really does not seem to have deserved it: and, I believe also, that a solitary instance may even now and then arise in persons of advanced age and irritable fibre, where from merely an alteration in the state of the lymphatic, by induration or ossification, the hands and feet suddenly become swollen and painful, and assume every appearance of a regular fit: But the gout which seizes a patient under the several circumstances which I have just been endeavouring to describe, is seldom very violent in its attack, or very quick in its progress. As it appears in debilitated habits, and is irregular in its accession, it has been usually called atonic gout, but as it is generally of long duration, I would rather wish

to follow the analogy, and give it the appellation of chronic; for the seat of it is the same with its kindred disease of rheumatism, and like it too it continues through the remainder of life at uncertain intervals to distress the miserable sufferer.

I have above mentioned, that the gout may be *misplaced*, as it is commonly termed, and by seizing upon some of the nobler parts immediately destroy life; but I beg leave here to assert it as my opinion, that either in the acute or chronic state of the disease, the patient may suddenly die without any attack of actual gout upon those parts, without any misplacement, without any retrocession. I believe it will be admitted by all that there is both in health and in disease, a particular consent throughout the system, and a sort of sympathy existing between distant parts, that when one is affected, another, without any direct communication, shall be affected also. The dislocation of a joint shall be attended with syncope; and an inflammation of the kidneys with vomiting:---an overcharged stomach shall produce headach, cholera shall be accompanied with spasms of the legs, and
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a wound of the toe or finger be followed by a locked-jaw, or even universal tetanus; and why may we not suppose that in the exquisite irritability of system which always accompanies gout, that from causes which must probably for ever remain inexplicable, the head, the lungs, the stomach, or the intestines, may also sympathise with the distantly affected part in a similar manner?

If I were not afraid of entering into a contest about a matter of mere opinion (for which I have but little leisure, and less inclination) I should almost be disposed to dispute the doctrine of hereditary gout: I will allow that it has attacked father and son, from one generation to another, through a long series of years; but unless it can be shewn that the education of the child has been correctly proper, and unless it can be proved that the son has not lived as the father, I have a right to maintain that the gout might originate with the son, as well as with the father before him: and if it can be proved (as it may in a thousand instances) that a gouty family by change of fortune—from a state of affluence to that of an inferior condition,

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has ever lost the disease, we may then very justly doubt the truth of the opinion. We hear every day from patients that their bilious disorders are hereditary; but every physician knows that the secretion of the bile is disturbed by causes evidently more reasonable than the supposed inherent disposition derived from their ancestors: The dropsy, too, and stone, and other diseases which might be enumerated, have been reckoned hereditary for no better reasons: As well perhaps might the ague in the Hundreds of Essex be called hereditary, which arises from the very same general cause operating upon all; or the itch, which in some families seems to be handed down as an heir-loom from generation to generation.

There is another very generally received opinion, which I cannot admit to be founded in fact, notwithstanding it may be stated upon the authority of almost every gouty person, that a paroxysm of the gout is salutary to the system, and relieves it from every other disorder. No one of the medical profession will doubt the veracity of Sydenham, who
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tells us, that his repeated fits of the gout were at last accompanied with a disease equally, or more deplorable, the stone, and each of us might also, from our own observation, enumerate others; but a less temperate man than this our English Hippocrates, strangely suffers himself to become the dupe of a fanciful delusion, and boldly rushes amidst precipices, until he suddenly tumbles down headlong: for he does not blush, by daily irregularity, to build upon that foundation which he has so assiduously been laying, and where structures, very different to that which he had intended, arise along with it. But there cannot, in any view of the matter, be the least excuse for his intemperance; for by this time he may assure himself, if he has any reflexion, that he has unadvisedly embraced what he now knows to be an error, and that the pernicious consequences of the custom are as certain as the pleasures attending its commission are transient. One would suppose too that the gout, even if it really was the cure of every other disorder, afforded not, in the misery which it brings along with it, any very great cause of exultation; and would rather heartily pity a man, than wish him

joy of the remedy in which he thus prides himself, and which he sometimes has the happiness of trying, at least, nine months out of the year. But the plan of administering this remedy, although it be generally so exactly suited to his inclinations, does not so well accord with his constitution: for wine and brandy, and such like stimulants, which invariably constitute the chief part of his regimen, not only give the full effect to his favourite disease, but undoubtedly very often produce other disorders: vertigo, dyspepsia, tremor, restlessness, and all the indescribable marks of nervous and bilious affections, soon begin to shew themselves, which being too frequently mistaken for wandering and misplaced gout, call again, in the opinion of the misguided sufferer, for fresh quantities of these baneful cordials, which, instead of proving the antidote for those diseases, tend only the more to fix and to confirm them: jaundice, dropsy, marasmus, hæmorrhagy, hectic fever, and colliquative sweats, teach him, too late, that to obstinacy in his error his life must soon become an inevitable sacrifice. Cordials then fail him, his stomach nauseates the scorching doses, and none but the mildest means, which

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he has hitherto reprobated and neglected, can only now a little while unkindly prolong that misery which death is anxiously waiting to terminate.

The progress of a fit of the gout, as I believe I have above mentioned, is quick or slow, according as it may be influenced by particular circumstances ; for if the system be acting strongly and vigorously, the limb (as in rheumatism) will swell, become red, and excessively painful, and, in the course of a few days, again subside, and recover gradually its proper functions : but if the constitution has already been much impaired by repeated attacks, or has previously been debilitated from other causes, the gout, though attended with symptoms sufficiently painful, does not proceed with that rapidity which would characterise it as the acute gout, but slowly and irregularly, like a truly chronic disease, advances towards its termination : And here I must take occasion to observe—that whether in its acute or chronic state, this disease, like the rheumatism, must end either by the lymphatic recovering its proper office, or by collateral channels vicariously discharging its duty, or by the fluid being ef-

fused into the adjacent cellular texture in consequence of its rupture—where, from the dissipation of its thinner parts, it concretes into an indurated mass, and is vulgarly called a chalk stone.

Upon the cure of a disease, which common opinion almost supposes to be incurable, you must not expect me to deliver any thing very decisive. The prejudices of the multitude are always opposed to the experience of the few; and therefore what you and others of the medical profession may concur with me in considering as proper and correct, the world in general will very probably disregard as trifling and hypothetical. Whilst I profess myself therefore to be one of those who think that the gout may be often alleviated by other means than patience and flannel, I do not expect to be implicitly believed: and when the prepossessions of a patient have induced him to entertain the idea that nothing else can be done for him, I would rather give him up to his own remedies, which will often undoubtedly afford him very great assistance, than press any method upon him in which he had not a reasonable confidence, and consequently in which he

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could not be expected unremittingly to persevere.

During a fit of the gout it is in vain to attempt any thing more than a mitigation of the existing distress: it is only after the paroxysm has ceased that the expectation of a complete cure can rationally be entertained.

For the sake of arrangement we will suppose a man just seized, for the first time, with a regular fit of the gout in his hand or foot, accompanied with the usual symptoms attendant upon pain and tumefaction: Although it may not be so very exactly marked as to distinguish it at once from rheumatism, or from rheumatic gout, a name, by the bye, which seems to have been invented to cover the difficulty of nicer discrimination; yet if the circulation be found quick, the skin hot, the mouth dry or clammy, and the mind, as well as body, in a state of restlessness and agitation, there will be a sufficient assemblage of symptoms to determine a physician in his method of cure. I should suppose that nothing very materially different from the plan which was laid down as useful in the active state of acute rheumatism could

here be thought wrong, and that relaxant and diluent remedies, aided by moderate external heat, could not be improper: The general irritability of the system will demand also a proportionate dose of a sedative medicine, and constipation must be prevented by the seasonable use of purgatives. The proper administration of such a method will commonly produce an alleviation of all the symptoms, and a little time, with the assistance of proper tonics, will usually complete the cure. But by the frequent repetition of such attacks, as the system must now be considerably debilitated, we will suppose its uniformity greatly interrupted, and instead of the regular swelling, and the commonly continued degree of torture, the appearance of the tumefaction shall be ambiguous, and the pain variable and inconstant. And here, in this irregular state of the disease, with a body almost worn out, and a mind equally shattered and enervated, what concurrence of symptoms shall I describe, from which we may reasonably deduce any curative intention? What Sydenham calls an unconnected and disorderly set of phenomena, (*farrago quædam* ~~variorum~~ *incomposita atque inordinata*) and

and which he applies so properly to hysterical affections, may give some idea of that contrariety of symptoms which very often appears in a fit of irregular and chronic gout. If indeed this very confusion itself does not afford us the best indication of the nature of the disease, I am at least sure that some physicians, and those of no mean account, are disposed to think that a better characteristic of it is still wanting, and therefore do not hesitate to call it gout, because they cannot with certainty so develope the symptoms as to denominate it any other disease. The dyspeptic condition of the stomach, the paralytic tremors of the limbs, the convulsive twitchings of the muscles, the relaxed joints, the frequent syncope, the interrupted respiration, the apoplectic vertigo, the œdematous extremities, the universal marasmus, and the despondency of mind, are all of them, (and more indeed might be added to the catalogue) the genuine marks of the chronic state of this disease; and as they must necessarily call for their own appropriate remedies, no general method of cure can be established as applicable to them all. I cannot therefore attempt to introduce any certain and

specific plan for the relief of the disease so accompanied, but will consider the several circumstances as they arise according to my own therapeutic classification.

The astringent order of medicines, inasmuch as it may sometimes indirectly answer the purpose of tonics, as I have above endeavoured to explain when treating of rheumatism, may occasionally be used when the system is labouring under the evident effects of debility, when the digestive organs tardily perform their functions, and the bodily strength is still wasting by colliquative perspirations. I will not unnecessarily extend this letter by mentioning particular remedies, as the choice of each must be directed by circumstances not only depending upon the period of the disease and the constitution of the patient, but upon a variety of others which can only be known as they are combined with, and arise out of, the occasion of administering them: and in this I am confident, that every physician who practises upon a rational and comprehensive scale will agree with me, whatever may be the opinion of those who consult their memorandum-book, rather

rather than their judgment, and look for a nostrum ready prepared and manufactured, instead of examining the case, and then adopting a formula from the plain dictates of a common understanding.

The emollient class may certainly be very well employed, whenever there may be tension and consequent pain, whether the disease be of the acute or chronic kind—and any of those external means which are calculated to soften the part without impeding perspiration, or any other office of the skin, will be proper.

Stimulants in the acute state of gout, notwithstanding their use has so very commonly obtained, both in the practice of almost every patient, and in the recommendation of almost every physician, cannot surely be entitled to such a general approbation from the actual experience of either. They have adopted the remedy because it is pleasant and customary, not because it is good and serviceable. For if they practise upon the old idea, that gout is a disease highly inflammatory, one would suppose it impossible that Brandy and Madeira could be chosen as the proper remedies to diminish its activity; and
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if the opinion which I have entertained of the nature of the disease be thought by them in anywise consonant to reason, they will easily also agree with me in thinking, that the indiscriminate use of stimulants cannot mitigate it: but in the chronic state of this disease, where the debility is extreme, where dyspepsia greatly oppresses the patient, and where there is a general tardiness in the performance of the ordinary functions, I am very far from supposing that a regularly and properly administered stimulant, which produces a constant, equal, and uniform action throughout the system, can be wrong, when innumerable examples of the contrary are occurring every day: Upon this principle, I suppose, that blisters and sinapisms, which are commonly applied to the extremities, may be useful; for so long as they contribute towards promoting a greater degree of energy in the habit, they may be of advantage to it.

I think there can be very little doubt about the propriety of admitting the class of sedatives into the method of cure for the gout, whether it be acute or chronic: for pain must in either case be mitigated; and as we know
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that in the most active state of the disease, opium and the rest may be very well combined with those medicines which are calculated to diminish the power and force of the system, so may they also, with an equal degree of fitness, be joined with those which correct its irregularity, and restore to it its firmness and its stability. In the common attack therefore upon the stomach, and indeed upon other parts where the idea of misplaced gout has usually called for the strongest stimulants in very immoderate quantities, I would rather trust to a sedative for immediate relief, either alone or in conjunction with other medicines, as circumstances might then indicate and seem to require.

The weak and debilitated state to which patients are sometimes reduced by a long continued fit of the gout, and in which we generally find them during the tedious lingering attack of it in its chronic form, demands the use of tonics—and therefore the Peruvian bark, and bitters, and other strengthening remedies, will here maintain their place and character as very useful.

The relaxant class will always merit considerable attention in the first attack of the
acute

acute gout. The vigor and activity which then prevail in the system—the quickened circulation, the general heat and restlessness, the thirst, and other febrile symptoms, all require the immediate exhibition of relaxants: and the neutralized saline remedies, antimonials, and others which relax the system without heating it, will be given with manifest advantage. I have no great doubt upon my mind, that under the above circumstances, phlebotomy might very often be productive of considerable benefit to the patient, notwithstanding its use appears not yet sufficiently to have obtained in practice—for in all the doubtful cases where it has not been exactly determined whether the disease was gout or rheumatism, and where phlebotomy has been employed as the cure, it has evidently relieved; and it would be ridiculous to allow, in matters of ambiguity, that the chance has always fallen on the right disease, and that bleeding, which we sometimes judge proper in rheumatism, has invariably (and although we found it so very difficult to discriminate) been performed in one, and never in the other. I will not however press the opinion, which

which both reason and analogy have thus induced me to support, since no one will suppose that there are not many cases of gout in which its use may be very hazardous, and many in which it would be absolutely hurtful; for it is only in the very acute stage of this disease, where the body has not been previously reduced by general irregularity, but is strong and vigorous, that I should ever consider the necessity of venæsection: in all cases, otherwise circumstanced, there cannot possibly be a doubt about its impropriety.—The topical application of leeches, where the limb is greatly loaded and distended, I have never found injurious; but on the contrary, I might perhaps say, that I have always found it beneficial.

Diluent and demulcents, whether we consider them merely as vehicles for more efficacious remedies, or as capable themselves of correcting or altering the state of the circulating fluids, cannot in any stage of the disease be improper.

As to the other classes of remedies which may or may not be requisite, as the state of the constitution may or may not be influenced by the disease under which it labours, I do
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not think it of any importance to endeavour to call your particular attention towards them; for every one readily knows when there is any necessity for their exhibition.

The protuberances which often appear upon the extremities in consequence of a severe fit of the gout, and which, I have before observed, have been denominated chalk-stones, as they sometimes degenerate into ulcers very difficult of cure, will frequently require the assistance of surgery. I have no opinion of the utility of the marine acid bath in such cases, notwithstanding it has been much employed upon the Continent, and lately recommended here: for unless these protuberances can be proved to consist of uncombined calcareous earth, as their name would import, but of which as detached from phosphoric acid I believe there exists not a single particle, the marine acid cannot easily affect them without equally destroying the intermediate and connecting animal fibres.

When the paroxysm has completely ceased, if the patient has the resolution to enter upon a very strict regimen, he may generally prevent its recurrence. I must be understood to speak of such cases only where the gout has properly subsided, and where the parts being entire are again performing their functions perfectly: Here then,

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if he determines upon abstinence from every thing which stimulates, and which in the end most assuredly produces a morbid irritability of the system ; if he is moderate in his pleasures, his business and his exercise; if he strictly denies himself every kind of spirituous, vinous, or other fermented liquor; if he steadily adheres to a milk and vegetable diet ; if he observes early hours, supports a regular warmth of body, and keeps the passions of the mind equal and undisturbed, he will, I have no doubt, not only deserve a cure, but find it : and in the chronic state likewise of this disease it might be well for him to consider, whether a general plan of forbearance and moderation might not better alleviate the miseries which always accompany it, than the contrary habit, which too commonly prevails ; and whether a disease, which when thus fixed affords us but little hope of eradicating it, may not however be rendered much more severe and intolerable by the many additional evils which must necessarily arise from intemperance.

After having thus brought my letter to its conclusion, I have only to hope that in the course of it I have not manifested an indecorous presumption in delivering particular opinions,

opinions, nor betrayed an unreasonable confidence in maintaining them. What I have written has been suggested entirely by cases which have fallen under my own care : and if any observations have been made which do not exactly accord with former theories, I can only say, that they are the result of reflexions which have been faithfully copied from practice : I may be wrong, but I am not conscious of my error. Let me therefore trust, if better information than that which I have hitherto acquired should detect my mistakes, that it will be advanced with temper, and urged against me with liberality ; for the cause of science is best promoted by candid discussion and calm investigation.

I have the honour to be,

DEAR SIR,

With the greatest respect,

Your very obedient,

And much obliged humble servant,

J. LATHAM.

Bedford Row,

Nov. 12, 1796.



